

REMARKS

Claims 1-48 are currently pending. Claims 8-16 and 31-40 have been withdrawn as being drawn to a non-elected invention. Applicants respectfully request rejoinder of the non-elected claims upon allowance of claim 1.

Claim 1 has been amended, without prejudice, to specify that the heater and the identifying liquid temperature sensor in the urea concentration identifying sensor heater are constituted to come in contact with the identified urea solution through a fin, respectively.

Claims 6, 7, 23-30, 41, 46 and 47 have been amended, without prejudice, to specify to delete the term "metallic" with respect to the fin.

Claim 41 has been amended, without prejudice, to specify that the urea concentration identifying sensor heater is constituted to come in contact with the identified urea solution through a fin.

No new matter has been added to the application by the foregoing amendments. These amendments are believed to place the application in condition for allowance or better form for appeal.

Applicants are pleased to note that the Examiner has indicated that claims 6, 7, 23-30, 46 and 47 are allowed.

Claims 1-5, 17-22, and 41-45 have been rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 7,153,693 ("Tajiri et al.").

With respect to pending claims 1 and 41, the Office Action contends that Tajiri et al. discloses an apparatus (shown in Figs. 1 and 2) for identifying a concentration of a urea in a urea solution, comprising:

- a urea concentration identifying chamber (5) for causing an identified urea solution introduced into a urea concentration identifying apparatus body to stay temporarily;
- a urea concentration identifying sensor heater (7) provided in the urea concentration identifying chamber; and
- a liquid temperature sensor provided in the urea concentration identifying chamber apart from the urea concentration identifying sensor heater at a constant interval (the Office Action alleges that it is obvious that a temperature sensor is provided in the chamber to record a temperature of the heated solution, referring to column 10, lines 49-50);

wherein the urea concentration identifying sensor heater including a heater and an identifying liquid temperature sensor are provided in the vicinity of the heater, and

wherein the apparatus further comprises an identification control portion for applying a pulse voltage to the urea concentration identifying sensor heater for a predetermined time, heating the identified urea solution staying temporarily in the urea concentration identifying chamber by the heater and identifying the concentration of the urea with an electric conductivity output difference corresponding to a temperature difference between an initial temperature and a peak temperature in the identifying liquid temperature sensor (referring to column 10, lines 42-63).

The Office Action acknowledges that Tajiri et al. fails to disclose that instead of electric conductivity output difference, the control portion identifies the concentration of the urea with a voltage output difference. The Office Action contends that it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a voltage output difference in Tajiri et al. to identify a concentration of the urea solution, since the recitation of such amounts to an intended use statement. The Office Action alleges that both “conductivity output difference” and “voltage output difference” are closely related to each other; and the mere selection of “voltage output difference” for use in Tajiri et al. to identify a concentration of the urea solution would be well within the level of ordinary skill in the art.

With respect to pending claims 2 and 42, the Office Action contends that the voltage output difference is equal to a voltage difference between an average initial voltage obtained by sampling an initial voltage (at temperature about 25°C) before application of the pulse voltage at a predetermined number of times and an average peak voltage obtained by sampling a peak voltage after the application of the pulse voltage (at temperature about 220°C) at a predetermined number of times (see lines 42-63 of column 10).

With respect to pending claims 3, 17, and 43, the Office Action contends that the identification control portion identifies a concentration of a urea of a urea solution with the voltage output difference obtained for the identified urea solution based on calibration curve data to be a correlation of a voltage output difference with a temperature for a predetermined reference urea solution pre-stored in the identification control portion (see Figure 2).

With respect to pending claims 4, 18, 19, and 44, the Office Action contends that the identification control portion correlates a liquid type voltage output for the voltage output

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difference at a measuring temperature of the identified urea solution with an output voltage for a voltage output difference at a measuring temperature for a predetermined threshold reference urea solution and thus carries out a correction (see Figure 2).

With respect to pending claims 5, 20, 21, 22, and 45, the Office Action acknowledges that Tajiri et al. fails to disclose that the urea concentration identifying sensor heater is a laminated urea concentration identifying sensor heater in which a heater and an identifying liquid temperature sensor are laminated through an insulating layer. The Office Action alleges that Tajiri et al. disclosed the invention except for laminating the sensor heater and the temperature sensor through an insulating layer, and contends that it would have been obvious to one having ordinary skill in the art at the time the invention was made to laminate the sensor heater and the temperature sensor through an insulating layer, since allegedly it has been held that forming in one piece an article which has formerly been formed in two or more pieces and put together involves only routine skill in the art.

Applicants respectfully, but strenuously, traverse this rejection and request that the rejection be reconsidered and withdrawn.

As reiterated by the Supreme Court in *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. ___, 82 U.S.P.Q.2d 1385 (2007), the framework for the objective analysis for determining obviousness under 35 U.S.C. §103 is stated in *Graham v. John Deere*. Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.*, 72 Fed. Reg., No. 195 (October 10, 2007) at page 57527 (hereinafter "Examination Guidelines"). The factual inquiries enunciated by the Court are as follows:

- (1) Determining the scope and content of the prior art;
- (2) Ascertaining the differences between the claimed invention and the prior art; and
- (3) Resolving the level of ordinary skill in the pertinent art.

Examination Guidelines at page 57527.

Tajiri et al. does not suggest or disclose use of a fin, as set forth in independent claims 1 and 41, as amended. Claims 2-5, 17-22 and 42-45 depend from claims 1 and 41 and are unobvious over Tajiri et al. for at least the same reasons as with respect to claims 1 and 41 as discussed above.

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For at least the foregoing reasons, the apparatus and methods of the presently claimed invention are not obvious over the disclosure of Tajiri et al. Accordingly, Applicants request reconsideration and withdrawal of this rejection.

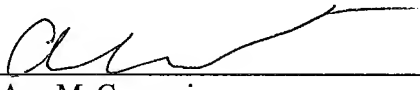
Conclusion

It is believed that any pending rejections have been addressed. However, the absence of a reply to a specific rejection, issue, or comment does not signify agreement with or concession of that rejection, issue, or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Applicants submit that the pending claims are in condition for allowance, which action is requested. The Examiner is invited to contact the undersigned directly at 412-227-3061 with any questions.

Respectfully submitted,
THE WEBB LAW FIRM

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